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### **Parent attitudes to using technology with children with autism in the home: a comparison of the UK and Spain**

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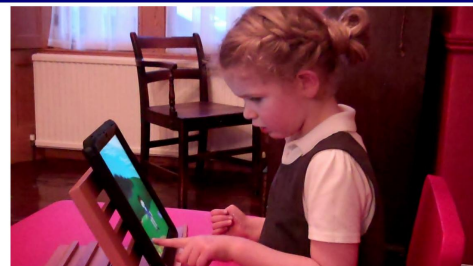
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## Parent Attitudes to Using Technology with Children with Autism in the home: a Comparison of the UK and Spain

### Background

- People with autism of all ages are often confident, skilled and prolific users of technology<sup>1</sup>
- Evidence shows technology can be beneficial in supporting education and delivering therapeutic content<sup>2</sup>
- However there are concerns among parents (within and outside the autism community) about the appropriate technology 'diet' for their children
- We require an evidence base on which to establish guidelines for the most effective and enjoyable use of technology by autistic children



**Objective:** to survey the experiences and attitudes of parents of children with autism to technology use at home, comparing perspectives between the UK and Spain

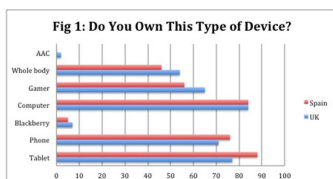
### Methods

An online survey in English and Spanish gathered parent responses to questions about:

- Family demographics and characteristics of children (Table 1)
- Hardware and software owned and used (Figure 1)
- Attitudes to technology

Table 1: Participant Characteristics

	UK n=142	Spain n=158	Comparison
Parent Age (yrs)	41.5 (12.5)	44.5 (13.9)	$t_{(298)} = 1.92, p=.056$
Parent Gender, f:m	84%: 12.5%	74%: 25%	
Parent Education (age when left)	19.4 (3.5)	23.4 (5.4)	$t_{(298)} = 7.32, p<.001$
Child Age (yrs)	10.8 (5.8)	9.5 (7.3)	$t_{(298)} = 1.76, p=.079$
Child Gender, f:m	15%: 77%	15%: 76%	
Child diagnosis			
Autism	65%	46%	
Asperger's syndrome	25%	16%	
PDD-NOS	2%	23%	
Other / not diagnosed yet	8%	15%	
Child language			
Minimally verbal	13%	25%	
Simple	15%	29%	
Complex	72%	46%	

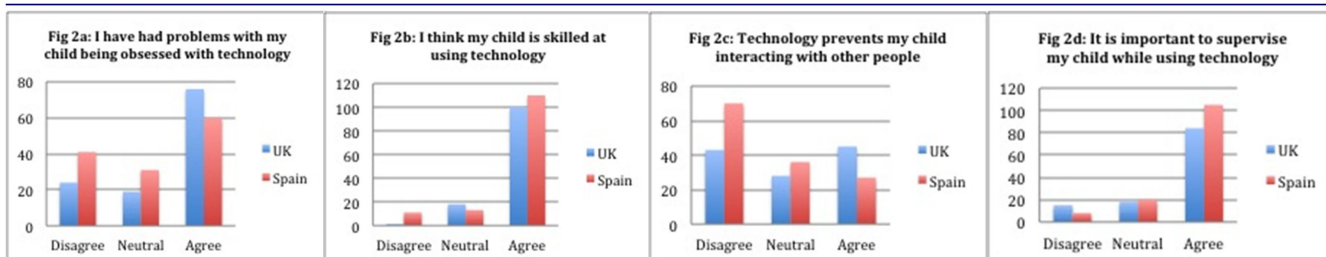


### Results: hardware access

- Children had access to a wide variety of technologies, averaging 4.5 devices per household in both UK and Spain
- Apple tablets and phones (iPad, iPhone) were twice as popular as other brands, again in both

### Results: predictors of 'technology time'

- Children in the UK used technology on average for 169 minutes per day across all devices owned, but the Spanish average was 108 minutes (sig. diff.:  $t_{(298)} = (3.78), p<.001$ )
- Regression indicates that technology time is predicted by: Child's age ( $p=.04$ ) and Child's language level ( $p=.058$ ) but also by Country ( $p=.055$ )
- Older children and children with more complex language use technology for longer periods



### Results: attitudes to technology

- All parents agree technology 'makes life easier' but parents in Spain have more positive attitudes to technology
- While 'technology time' predicts variability in some attitudes, Country is also an independent predictor of attitudes
- This may be partially explained by different attitudes to supervision (Fig 2d) as well as by societal differences

### Conclusions

- Parents report widespread access to technology by their children with autism, and high rates of daily use
- Data not shown here indicate that the most popular uses of technology are 'mainstream' games and watching TV or films
- Parents have mixed feelings about technology, reporting positive impact on family life and high levels of skill, while also having concerns about obsessive behaviour, and conflict with 'real world' interaction
- National differences suggest that parental attitudes to technology are partly shaped by society
- Results support development of autism-specific guidelines to maximise benefits of technology time for autistic children<sup>3</sup>

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